

USING ADMINISTRATIVE DATA TO MONITOR EMERGENCY DEPARTMENT UTILIZATION

WHY MONITOR EMERGENCY DEPARTMENT UTILIZATION?

- To assess the impact of your overall CAP initiative in improving access to timely and effective primary care
 - The ED as a window on access
 - The ED as a window on performance of the safety net
- To evaluate a particular component of your CAP initiative (e.g. - to divert patients from emergency rooms)
- To learn more about the extent and character of access problems in your community
 - Which populations are having the biggest problems
 - In which geographic areas (e.g., zip codes) is the problem the greatest

ONE APPROACH TO MONITORING

- Use “administrative data” for Emergency Department visits
- Use an algorithm that classifies ED visits as:
 - Non-emergent
 - Emergent - but primary care treatable
 - Emergent - ED care needed, but preventable/avoidable
 - Emergent - ED care needed
- Examine utilization by:
 - Payer status
 - Race/ethnicity/age/gender/etc.
 - Geographic area (e.g., zip code, health service area, etc.)
 - Etc.

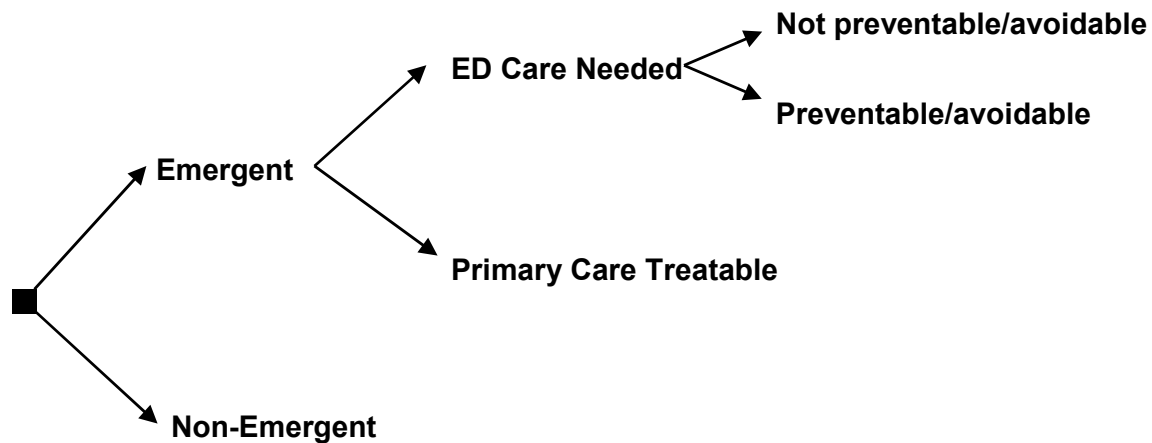
ADVANTAGES OF “ADMINISTRATIVE DATA”

- They’re already there
- They’re electronic [computerized]
- They can be relatively inexpensive to analyze [sometimes]
- They can tell you a lot about what is going on [sometimes]

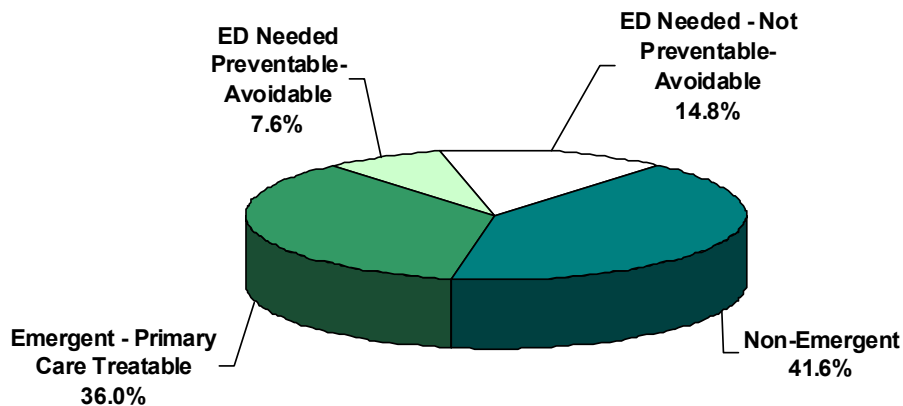
DISADVANTAGES OF ADMINISTRATIVE DATA

- They can be “dirty”
- They seldom tell the whole story
- Not everyone is willing to share (which may be required)

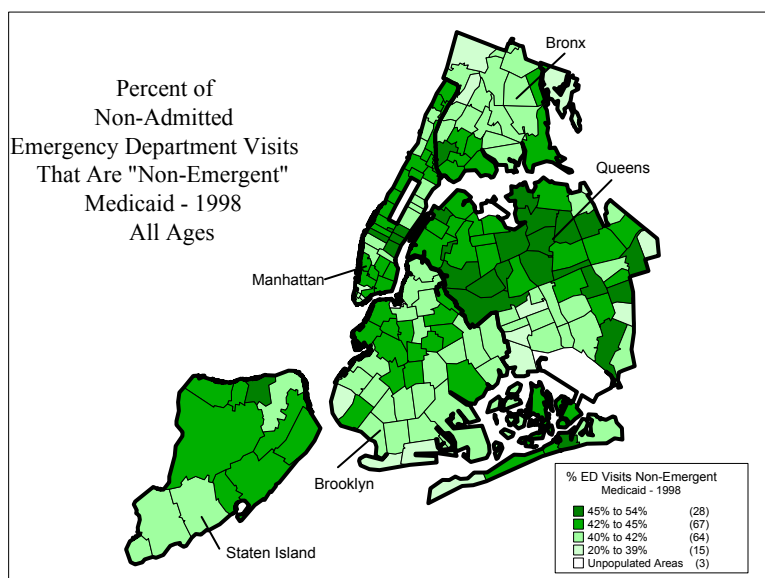
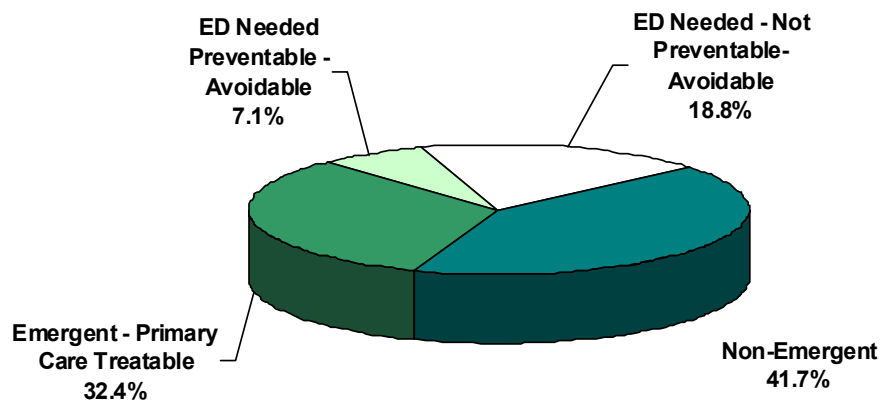
EMERGENCY DEPARTMENT CLASSIFICATION ALGORITHM

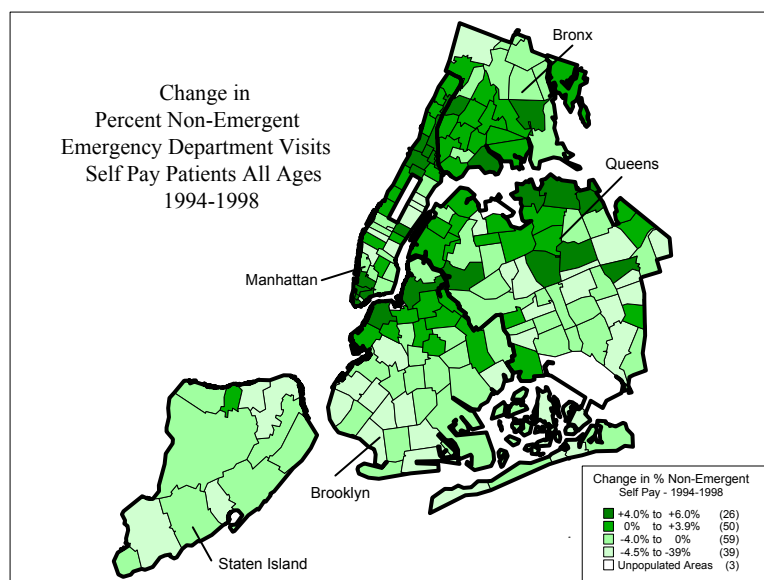
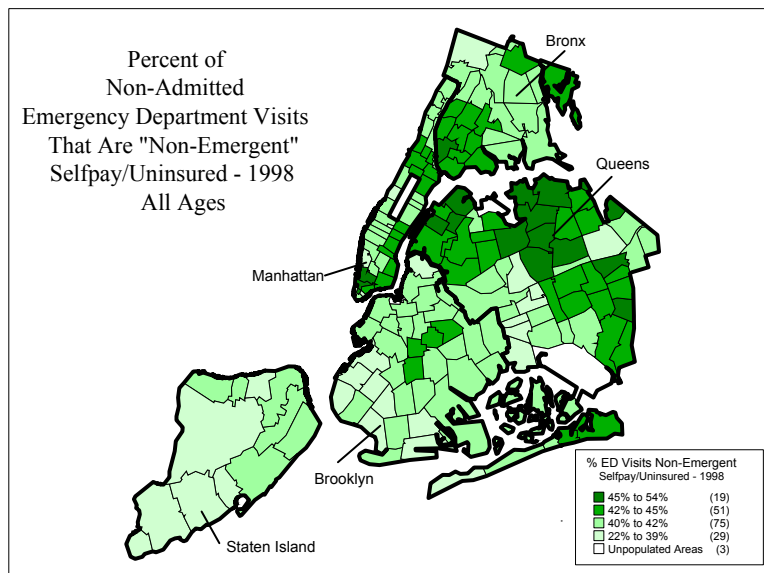


New York City ED Utilization Profile Children Age 0-17 – 1998



New York City ED Utilization Profile Adults Age 18-64 – 1998





MORE FINDINGS: SOME COMPARISONS

- Things are worse among Medicaid patients (higher % of non-emergent and primary care treatable ED use)
- Things are better for commercially insured patients
- Uninsured patients are about in the middle
 - Possible impact of access barriers
 - Potential costs may mediate utilization behavior
- Men are basically idiots

MORE FINDINGS: SOME TRENDS 1994-1998

- Things are getting somewhat better for children
- Things are about the same for adults
- Things are about the same for uninsured (in most areas)

A LITTLE MORE ABOUT THE ED ALGORITHM...

- It's development was funded by...
 - Robert Wood Johnson Foundation
 - The Commonwealth Fund
 - United Hospital Fund of New York
- It was based on analysis of 6,000 full ED records incorporating information on:
 - Initial complaint
 - Vital signs
 - Resources used in the ED
 - Medical history
 - Diagnostic information
- This information was then "mapped" to the ultimate discharge diagnosis for the 6,000 patients (which is available in computerized administrative data bases)
- The algorithm can then be applied to computerized ED data bases that contain discharge diagnoses

WHAT'S NEEDED TO USE THE ED ALGORITHM...

- From each hospital in the area, a full set of computerized ED records for each ED visit containing:
 - Discharge diagnosis
 - Expected payer
 - Patient age
 - Patient gender
 - Patient race/ethnicity
 - Patient zip code
- Demographic data on the area (to calculate ED use rates)

HOW TO PROCEED: OPTION 1: GO IT ALONE...

- Assemble to the ED database from area hospitals (or get it from your state central data authority - 5-6 states)
- Call the NYU Center for Health and Public Service Research - we'll send you the algorithm (in SAS code) free of charge
- Apply it to your database
- Analyze the results
- Etc.

HOW TO PROCEED: OPTION 2: GO IT ALONE (with help)...

- Assemble to the ED database from area hospitals (or get it from your state central data authority - 5-6 states)
- Send it to the NYU Center for Health and Public Service Research
- We will apply the algorithm to your database
- We will take a first cut at analyzing and mapping the results
- We will send you the analysis, maps, and database (with algorithm applied to your data)
- Send us a check (it's not free)

HOW TO PROCEED: OPTION 3: A COLLABORATIVE OF COLLABORATIVES

- Assemble to the ED database from area hospitals (or get it from your state central data authority - 5-6 states)
- Cooperative with other CAP grantees who are interested
- Follow option 1 or 2 to get the algorithm applied to your database
- Compare what you find to other participating communities
- Perhaps get help in analysis (sharing the costs or encouraging HRSA to pony-up some \$\$\$)

A COUPLE OF CLOSING COMMENTS...

- Using ED administrative data can be important to help...
 - Understand the nature and extent of the "problem"
 - Monitor progress/performance of your initiative
 - Identify areas/issues for further analysis
- It should be part of a bigger strategy to...
 - Monitor access and the performance of the safety net
 - Learn more about the nature and extent of the problem
 - Learn more about patient care seeking behavior/preferences/etc
- This isn't rocket science:
 - Don't be afraid of a little data
 - The algorithm is intuitive to policy makers

LINKS TO ON-LINE ARTICLES

[Emergency Department Use in New York City: A Substitute for Primary Care? John Billings, Nina Parikh, and Tod Mijanovic, March 2000. \(#433\)](#)

[Emergency room Use: The New York Story. John Billings, Nina Parikh, and Tod Mijanovich, November 2000. \(#434\)](#)

[Emergency Department Use in New York City: A Survey of Bronx Patients. John Billings, Nina Parikh, and Tod Mijanovich, November 2000. \(#435\)](#)

FOR MORE INFORMATION, CONTACT:

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